

**FACT SHEET FOR NDPDES PERMIT
NDR05-0000**

**GENERAL PERMIT FOR STORMWATER DISCHARGES
FROM INDUSTRIAL ACTIVITIES**

DATE OF THIS FACT SHEET – JANUARY 13, 2009

INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later amendments in 1977, 1981, and 1987, etc.) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), by which the federal Environmental Protection Agency (EPA) has oversight authority. In 1975 the State of North Dakota was delegated primacy of the NPDES program by EPA. Our state governor accepted the delegation and the state legislature assigned the power and duty for conducting NPDES permitting and enforcement to the North Dakota Department of Health (NDDH). The legislature defined North Dakota Department of Health's authority and obligations for the wastewater discharge permit program in NDAC 33-16 (North Dakota Administrative Code), which was promulgated pursuant to NDCC chapter 61-28 (North Dakota Century Code). NDDH uses North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following regulations apply to NDPDES permits:

- Procedures NDDH follows for issuing NDPDES permits (NDAC chapter 33-16-01),
- Water quality criteria for waters of the state (NDAC chapter 33-16-02.1).

These rules require any treatment facility operator to obtain an NDPDES permit before discharging wastewater to state waters. They also define the basis for limits on each discharge and for other requirements imposed by the permit.

According to the North Dakota Administrative Code (NDAC) section 33-16-01-08 the NDPDES permit program NDDH must prepare a draft permit and accompanying fact sheet, and make it available for public review. NDDH must also publish an announcement (public notice) telling people where they can obtain the draft permit, and where to send their comments on the draft permit, during a period of thirty days (NDAC chapter 33-16-01-07). For more details on preparing and filing comments about these documents, please see **Appendix A – Public Involvement**. After the Public Comment Period ends, NDDH may make changes to the draft NDPDES permit. NDDH will summarize the responses to comments and any changes to the permit in **Appendix D - Response to Comments**.

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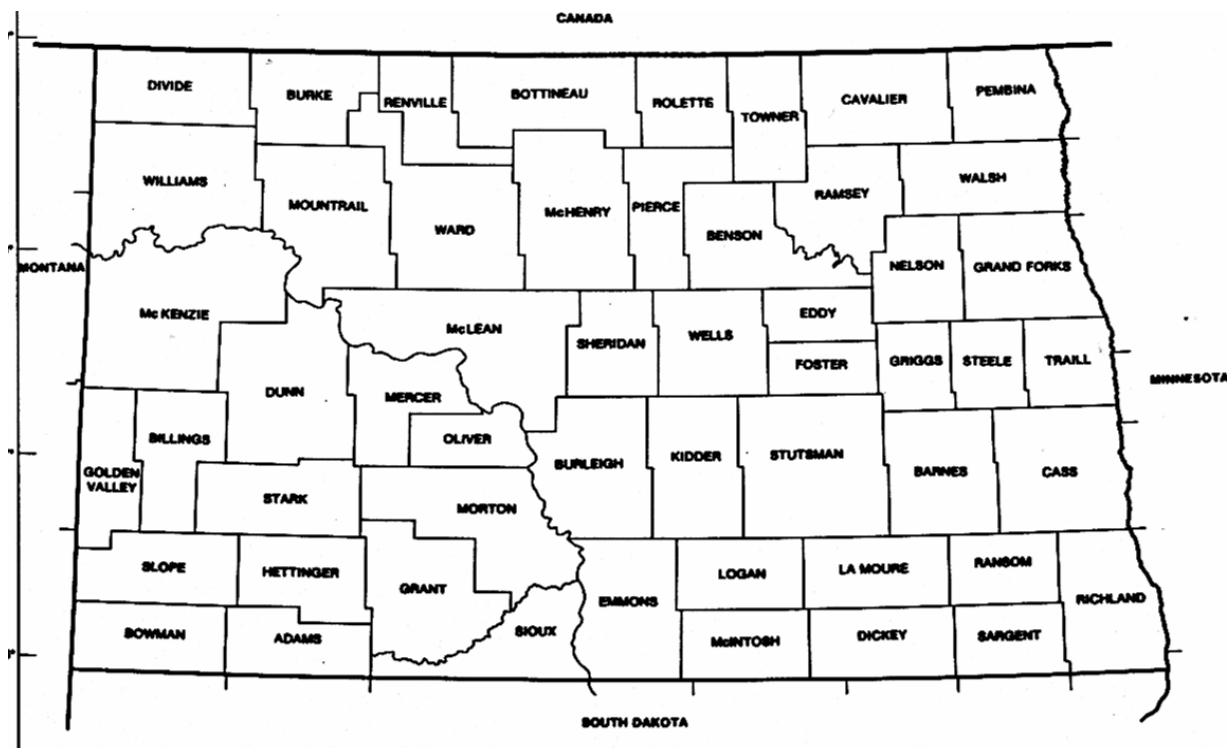
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BACKGROUND INFORMATION

General Information

Permit Number:	NDR05-0000
Permit Type:	General Permit, Renewal
Type of Treatment:	Best Available Technology Economically Achievable (BAT); Best Professional Judgment (BPJ); and Best Management Practices (BMPs)
Discharge Location:	Waters of the State of North Dakota

Figure 1 – Photograph of the State of North Dakota



General permits provide a streamline means to cover a large number of facilities that are subject to the regulations' broad definition of "stormwater discharges associated with industrial activity." These facilities are subject to the requirements of Section 402 of the Clean Water Act, as enforced by the NDPDES permitting program. In addition, the general permit process places less of an administrative burden on the issuing authority than the individual permitting process. The general permits require baseline control practices aimed at minimizing the impact of stormwater discharges on waters of the state. Individual permits or industry specific permits may be developed to address specific water quality concerns or industry specific control practices.

The present general permit issued for stormwater discharges associated with industrial activities expires March 31, 2010. The permit was developed in response to the stormwater permit application requirements promulgated by the U.S. Environmental Protection Agency on November 16, 1990. The renewal will continue to provide coverage for stormwater discharges from industrial facilities statewide. Currently, there are approximately 278 facilities covered by the present permit for industrial activities. In addition, 127 facilities have certified that they meet the condition of "no exposure" and are exempt from the permit requirements.

SIGNIFICANT PERMIT CHANGES

The following additions or changes to this general permit were made:

1. Each outfall must now be identified on the site map (see Part II.C.1.b).
2. The following was added to Part II.C.3.d, "Employee training should be provided at least annually, as new employees are hired or as necessary to ensure compliance with the plan and the general permit."
3. The following was added to Part II.C.3,

"All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for the site situation. The permittee may deviate from the manufacturer's specifications and if you provide justification for the deviation and document the rationale for the deviation in the SWPP plan."
4. The monitoring (or sampling) period for those facilities that are required to sample – other than Primary Commercial Service Airports and US Air Bases – has been changed to January 1 to December 31, due January 31. The change was made to allow facilities a better opportunity to collect a stormwater sample between periods of winter conditions.
5. An oil and grease monitoring requirement for landfill and land application sites was added (Appendix II, Group 7).

COVERAGE UNDER THIS PERMIT

Applicability of General Permit

Under this general permit, authorization to discharge relatively uncontaminated stormwater from industrial activities into the waters of the state of North Dakota may be granted. This permit is for stormwater discharges associated with most industrial activities. The permit is not intended for discharges from mining, extraction or paving material preparation activities; or construction disturbances. These activities will be covered under separate general permits, NDR32-0000 for Mining, Extraction or Paving Material Preparation and NDR10-0000 for Construction. This permit applies to discharges composed (either in whole or in part) of stormwater associated with

industrial activity as defined in Title 40 of the Code of Federal Regulations (CFR), Part 122.26(b)(14), as published July 1, 2009, except for the following:

- Operations involved in mining or extracting activities, including processes to prepare materials for use, Standard Industrial Classification (SIC) Codes 10 through 14.
- Portable or temporary concrete or asphalt batch plants, SIC Codes 1611 and 2951.
- Stormwater discharges from construction activity as defined in 40 CFR 122.26(b)(14)(x).

Discharges Not Covered

There are other types of discharges which also may not be appropriately regulated through this permit and other limitations on what activities this permit can authorize. As such, the following discharges are not eligible for coverage under this permit:

- Stormwater discharges subject to a nationally established effluent limitations guideline or other performance standard under 40 CFR subchapter N.
- Discharges or releases of process wastewaters or other non-stormwater discharges except those authorized under Part II.A of the general permit.
- Discharges to waters for which there is a total maximum daily load (TMDL) allocation are not covered unless you develop a Stormwater Pollution Prevention (SWPP) plan that is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, the SWPP plan must incorporate the conditions applicable to the discharge necessary for consistency with the assumptions, allocations and requirements of the TMDL.
- The placement of fill into waters of the state requiring local, state, or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits).
- This permit does not substitute for obligations under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), or National Historic Preservation Act (NHPA). It is your responsibility to ensure the project and resulting discharges comply with the respective requirements.
- Stormwater discharges that the Department determines will cause, or have the reasonable potential to cause or contribute to, violations of water quality standards.

Request for Authorization

Facilities covered under the present permit shall be retained, provided a satisfactory request was made under the renotification provisions of the permit. If deemed necessary, the Department may require the submittal of a new Notice of Intent. For operators of new facilities wishing to obtain coverage, an application must be submitted at least 7 days prior to starting any activity subject to regulation as a stormwater discharge associated with industrial activity. Permit coverage will become effective 7 days after submittal of a complete application unless otherwise notified by the Department (based on the department receipt date).

The application (or also referred to as Notice of Intent) shall contain, at a minimum, the following information:

- Name and mailing address of the owner or operator
- Contact name and phone number
- Name of facility or site
- A brief description of the nature of business or activity
- Standard Industrial Classification (SIC) Code
- Acreage of the facility dedicated to industrial activity
- Location of the site(s), including the county, latitude and longitude or township, range, section, and 1/4 section
- Name of receiving water(s) or the name of the receiving municipal storm sewer system and receiving water(s)
- The signature of the applicant(s), signed in accordance with Signatory Requirements of the permit

Applicants must include a copy of the Stormwater Pollution Prevention (SWPP) plan if the facility involves 50 or more acres; or will have a discharge point located with 2000 ft of, and flow to, a water body listed as impaired under section 303(d) of the Federal CWA.

Local agencies may operate a local stormwater management program and impose local requirements. The local authority may require that a copy of the application be provided to them for review and approval.

The Department will accept applications from facilities after the specified dates, or from existing facilities that were required to apply prior to the issuance of this permit. In such cases, the Department may take appropriate enforcement action. Individuals who willingly fail to provide this notification, and subsequently discharge pollutants to the waters of the state without an NDPDES permit, shall be in violation of federal and state rules and regulations.

Alternative Permit Coverage and Notice of Termination

The Department, by written notification only, may require any person authorized by this permit to apply for and either obtain an individual NDPDES permit or seek coverage under an alternative NDPDES general permit. Any person covered by this general permit may request to be excluded from such coverage by either applying for an individual NDPDES permit, or filing a Notice of Intent to be covered under an alternative NDPDES general permit.

When an individual NDPDES permit is issued to a person otherwise subject to this permit or the person is approved for coverage under an alternative NDPDES general permit, the applicability of this permit to the individual permittee is automatically terminated upon the effective date of the individual permit or the date of approval for coverage under the alternative general permit.

Termination of Coverage

A permittee may request the termination of permit coverage when stormwater discharges associated with industrial activity are no longer present at the facility. The request must be made, in writing, to the Department. Depending on the reason for discontinuing coverage, the request must consist of either of the following:

- **No Exposure.** A no exposure certification made in accordance with 40 CFR 122.26(g) will constitute a request for termination of coverage under this permit. To qualify for the conditional exemption, all industrial materials and activities must be protected to prevent exposure to stormwater. A facility operator must submit a No Exposure Certification form (SFN 52314) to the Department to end permit coverage under conditional exclusion provided for no exposure of industrial activities and materials.
- **Elimination of sources.** If stormwater discharges associated with industrial activity have been eliminated, the request must include the name and address of the operator, the name and location of the facility, the permit number, and a description of why coverage is not necessary (i.e., plant closure, ceasing industrial activity, removing equipment or storage, etc.). The request must be signed in accordance with signatory conditions of this permit.

Special Conditions

As this is a general permit for stormwater discharges, it must be identified that certain discharges are prohibited for coverage under this permit. Should process wastewaters or other non-stormwater sources be combined with the stormwater discharge, the non-stormwater source must be in compliance with an appropriate NDPDES permit specifically for the non-stormwater discharge. The Department will on a case-by-case basis consider allowing certain non-stormwater discharges to be operated under the conditions of this permit. Non-stormwater discharges that may be considered for coverage under this permit would be limited to those identified or sufficiently similar to those identified, in similar EPA's general permits. Such discharges include, but not limited to, fire hydrant flushing, potable water line flushings, infrequent building washdowns if detergents or other compounds are not used, or uncontaminated foundation drains.

This permit will not relieve the permittee of reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302. 40 CFR 117 and 40 CFR 302 identify reportable quantities for the release of hazardous substances. There is a remote possibility that hazardous substances in excess of reporting quantities may enter stormwater discharges regulated by this permit. Since these hazardous substance discharges are not authorized by this permit, the reporting requirement exemption in 40 CFR 117.12 would not apply, and all specified reporting requirements would remain in effect. Of a more probable nature is the possibility of oil in excess of the mandated reporting quantity entering a stormwater discharge. As an oil spill release is not authorized by this permit, the discharger would not be relieved of the reporting obligations, which in this case are identified in 40 CFR 110. In addition, the requirements of Section 311 of the Clean Water Act, and any applicable provisions of Section 301 and 402 of the Clean Water Act would also apply.

STORMWATER POLLUTION PREVENTION PLAN

All facilities covered by this general permit are required to prepare, implement, and maintain a Stormwater Pollution Prevention (SWPP) plan. The major objectives of the plan are to identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges and ensure that practices are implemented to minimize pollutants in stormwater discharges.

Some facilities covered by this permit may be subject to local or state sediment and erosion control programs or stormwater management related requirements as part of other regulatory programs. In particular, spill prevention control and counter measure (SPCC) plans have been developed for many facilities. In most cases, it will be acceptable to incorporate by reference the applicable portions or requirements of plans developed under other regulatory programs into the SWPP plan.

The SWPP plans developed and approved under the current permit may be continued under the proposed permit. The facilities with existing plans are responsible for updating their SWPP plans accordingly.

The Stormwater Pollution Prevention plan requirements reflect a combination of controls measures and Best Management Practices outlined in the EPA Multi-Sector General Permit (MSGP-2008) published in the Federal Register on September 29, 2008 pertinent to the industrial activities covered by this permit. The required SWPP plan items in the draft permit shall be similar to those in the past versions of the permit. At a minimum, the SWPP plan must include the following:

1. Site Description.

- a. Provide a description of the type of activity conducted at the facility.
- b. A site map indicating drainage patterns, the outline of the drainage area for each stormwater outfall, areas used for storage or disposal of materials, and any existing or planned structures to reduce stormwater contamination. Clearly identify property boundaries, natural drainage ways receiving discharges, section, township, and range or lines of latitude and longitude. The map or drawing must be of suitable scale and quality to show the required information.
- c. Identify the individual(s) responsible for implementing, maintaining and revising the SWPP plan.
- d. Facilities that have a discharge point within 2000 feet of, and flow to, a water body listed as impaired under section 303(d) of the Federal Clean Water Act, must identify the water body and impairment in the plan. The Department's 303(d) list may be found at the following website under Integrated Reports:
www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm .

2. Description of Potential Pollutant Sources.

- a. Identify materials that are processed, handled, stored, or disposed at your site that have the potential to be released with stormwater.
- b. Provide an assessment of the various sources at the site that could contribute pollutants to stormwater runoff. Each of the following shall be evaluated for the reasonable potential to contribute pollutants: loading/unloading operations, outdoor storage, disposal and processing activities, significant dust generating activities, and disturbed area vulnerable to erosion. Factors to consider in assessing potential sources are: the nature and quantity of material, degree of exposure to stormwater, history of spills or leaks, and any measures in place to control stormwater.

- c. Identify sources of non-stormwater discharges that may be present and controls used to minimize the impact of the source. If the non-stormwater discharge is not authorized include measures to remove the illicit discharge.
- d. For facilities subject to Emergency Planning and Community Right-to-Know Act Section 313 (EPCRA 313) requirements, the potential pollutant sources for which you report under EPCRA 313 must be identified in you description of potential pollutant sources.

3. Stormwater Controls.

The plan shall describe the existing or planned controls for each source or operation that may contribute pollutants in stormwater runoff. A combination of Best Management Practices (BMPs) and structural controls must be implemented as appropriate to reduce pollutant contributions in stormwater. Such practices include:

- a. Good housekeeping practices to maintain a clean and orderly facility. Litter, debris, chemicals and parts must be handled properly to minimize exposure to stormwater. This includes measures to reduce and remove sediment tracked off-site by vehicles, and the generation of dust.
- b. Preventive maintenance practices must be provided for the inspection and maintenance necessary to ensure the proper operation of stormwater management devices (e.g., oil-water separators, catch basins, and silt fences) as well as equipment used or stored at a site.
- c. Spill prevention and response procedures must be developed where potential spills can occur. Where appropriate, specific handling procedures, storage requirements, spill containment and cleanup procedures shall be identified.
- d. Employee training informs personnel of their responsibility in implementing the practices and controls included in the plan such as spill response, good housekeeping, preventative maintenance, and sediment control practices. Employee training should be provided at least annually, as new employees are hired or as necessary to ensure compliance with the plan and the general permit.
- e. Sediment and erosion controls must be implemented on areas of operations vulnerable to erosion. Areas vulnerable to erosion include those with little or no vegetation, steep slopes, or those with concentrated runoff flows such as ditches and culverts. The plan shall identify the control measures that will be used to minimize the release of sediment from the site (such as sediment basins, rock check dams, silt fences, vegetative buffers, permanent seeding, grassed swales, etc.) as well as methods to recover off-site sediment accumulations.
- f. Minimize exposure of industrial materials and activities to the extent practicable. Identify practices or site features (such as storm resilient shelters) which limit the exposure or contact of stormwater with materials or activities.
- g. Stormwater Management. The plan shall include a description of practices that have been installed (or will be installed during construction) to control pollutants in stormwater discharges from the facility or offset the increase in runoff due to impervious area at the facility. Such practices may include: stormwater ponds; flow reduction by use of open

vegetated swales and natural depressions; infiltration of runoff on-site; and sequential systems which combine several practices. The plan shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.

All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for the site situation. You may deviate from the manufacturer's specifications if you provide justification for the deviation and document the rationale for the deviation in the SWPP plan.

4. Maintenance.

All structural stormwater controls and other protective measures identified in the plan must be maintained in effective operating condition. The plan must indicate as appropriate the maintenance or clean out interval for sediment controls. If site inspections, required in this permit, identify BMPs that are not operating effectively, maintenance shall be arranged and accomplished as soon as practicable.

5. Inspections.

The plan must provide for site inspections to monitor the condition of stormwater discharge outlets and the effectiveness of stormwater controls. The permittee shall ensure that personnel conducting site inspections are familiar with permit conditions and the proper installation and operation of control measures. The site inspection frequencies and requirements are provided in Part III of this permit, Self-Monitoring and Reporting.

6. Plan Review and Revisions.

- a. The plan shall be signed in accordance with the signatory requirements, Part IV.A.6, and retained on-site for the duration of activity at the permitted location.
- b. The permittee shall make plans available upon request to the Department, EPA, or, in the case of discharges to a municipal separate storm sewer system, to the operator of the municipal system.
- c. The permittee shall amend the SWPP plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the state. The plan shall also be amended if the plan is found to be ineffective in controlling pollutants present in stormwater.
- d. A plan implemented under the previous version of this permit may be continued under this permit. Facilities operating under an existing SWPP plan are responsible for incorporating any changes necessitated by the conditions described in this permit. Any such changes must be implemented within 180 days of this permit's effective date.

Additional Terms and Conditions

1. Salt Storage Piles. All salt storage piles used for deicing or other industrial or commercial purposes shall be enclosed or covered to prevent exposure to precipitation. Salt storage piles do not need to be covered or enclosed when adding to or taking materials from the pile and when stormwater drainage from the pile is contained on-site.
2. Bulk storage structures for petroleum products and other chemicals shall have adequate leak and spill protection to prevent any spilled materials from entering waters of the state.
3. The stormwater controls are expected to withstand and function properly during precipitation events of less than or equal to the 2 year, 24 hour storm event. The release of sediment or other materials due to such storm events should be minimal. The 2 year, 24 hour rainfall event in North Dakota ranges from about 1.9 inches in the west to 2.3 inches in the east.
4. Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the permitted activity must be managed with the appropriate BMPs such that the discharge does not adversely affect the receiving water or downstream landowners. The Permittee(s) must operate the discharge to minimize the release of sediment and provide energy dissipation measures to adequately protect the outlet from erosion. Dewatering is limited to stormwater and small amounts of ground water that may collect on-site and those sources identified in Part II.A. A separate permit must be obtained for the release of water from other sources.
5. All stormwater discharges must comply with the requirements, policies, or guidelines, of municipalities and other local agencies. Any discharges of stormwater to storm drainage systems or other water courses under local jurisdiction, including those subject to municipal stormwater management programs developed to comply with NDPDES permits, must comply with local requirements.

Authorization to Discharge

Coverage under this permit does not convey approval to discharge to any ditch, storm sewer, private property, or other method of routing the effluent from the site of discharge to the waters of the state. It shall be the permittee's responsibility to seek, apply for and obtain any additional authorizations necessary to initiate the discharge proposed in the permittee's application. If the process of obtaining all the authorizations necessary to initiate the discharge results in changes to the permittee's application, the permittee shall modify in writing the application for an NDPDES permit. The permittee is not authorized to discharge wastewater other than the type and at the location specified in the application.

PROPOSED PERMIT LIMITS

Effluent Limitations

The permit will not take the place of any promulgated effluent limitation guidelines applicable to any discharge. These discharges must be covered by another NDPDES permit. The pollution prevention practices identified in the permit serve as an alternative to quantitative effluent

limitations for the stormwater discharges covered by the permit. The Department will conduct plan reviews and site inspections to ensure that proper BMPs and runoff controls are implemented to prevent stormwater discharges from adversely impacting waters of the state.

Any discharge composed in whole or in part of coal pile runoff shall not exceed a daily maximum concentration of 50 milligrams per liter (mg/l) for total suspended solids. The pH, an instantaneous measurement, shall remain within the range of 6.0 to 9.0. Any untreated overflow from facilities designed, constructed and operated to treat the volume of coal pile runoff associated with a 10 year, 24 hour storm event shall not be subject to the total suspended solids limitation.

Benchmark Concentrations

Benchmark concentrations should not be interpreted as stormwater effluent limitations, individual wastewater effluent limitations, or as state water quality standards. Benchmark concentrations provide an appropriate level to determine whether a facility's stormwater pollution prevention measures are effective. A pollutant concentration that is above the benchmark value represents a potential water quality concern and the need to improve a facility's SWPP plan.

Stormwater Sampling

The permit contains default stormwater sampling procedures and conditions that would be appropriate for the types of facilities covered by the permit. The requirement would apply to any facilities that may be required to collect samples from stormwater discharges. The default frequency for sampling is annual except for the primary commercial airports and air force bases which are directed to sample monthly during deicing season.

The permit identifies several industry types that must conduct stormwater sampling. The industries and sample parameters reflect the conditions of the EPA Multi-Sector General Permit (MSGP-2008). The specific monitoring conditions and parameter list for each facility group is outlined in Appendix 1 of the permit. The sampling requirements by industry are provided below.

Coal Pile Runoff (Any facility with discharge from coal storage piles)

Required Parameter	Benchmark Value	Discharge Limit
<ul style="list-style-type: none"> pH Total Suspended Solids Copper, Total¹ Nickel, Total¹ Zinc, Total¹ 	 0.0636 mg/L 1.417 mg/L 0.117 mg/L	between 6.0 and 9.0 S.U. 50 mg/L
Any untreated overflow from facilities designed, constructed and operated to treat the volume of coal pile runoff associated with a 10 year, 24 hour storm event shall not be subject to the total suspended solids limitation.		

Wood and Paper Products (SIC 2421-2426, mills; 2491, preserving; 2493, reconstituted wood products; and 2631, paperboard)

<u>Required Parameter</u>	<u>Benchmark Value</u>
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L
• Chemical Oxygen Demand	120 mg/L
• Phenols, Total	1.0 mg/L
• Arsenic, Total	0.1685 mg/L
• Copper, Total ¹	0.0636 mg/L

The sampling for Phenols, Arsenic and Copper must be tested at wood preserving facilities only.

Chemical and Related Products (SIC 281, industrial inorganic chemicals; 282, plastics and synthetic materials; 284, soaps and detergents; and 287, agricultural chemicals)

<u>Required Parameter</u>	<u>Benchmark Value</u>
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L
• Total Phosphorus	2.0 mg/L
• Ammonia ² as N	15.0 mg/L
• Nitrates as Nitrogen	0.68 mg/l
• Chemical Oxygen Demand	120 mg/L
• Zinc, Total ¹	0.117 mg/L

Facility must also test stormwater for any parameter that may be limited on discharges subject to effluent guideline limitation.

Food and Related Products (SIC 2011, meat packing plants; 2015, poultry processing; and 207, fats and oils)

<u>Required Parameter</u>	<u>Benchmark Value</u>
• Oil and Grease	No visible sheen (15 mg/L)
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L
• Ammonia ² as N	15.0 mg/L
• Nitrates as Nitrogen	0.68 mg/l
• 5-Day BOD	30 mg/L
• Chemical Oxygen Demand	120 mg/L
• Fecal Coliform	200 colonies/100mL

Fecal coliform testing is not required at vegetable oil processing facilities.

Primary Metal Industries (SIC 33)

<u>Required Parameter</u>	<u>Benchmark Value</u>
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L
• Lead, Total ¹	0.0816 mg/L
• Cadmium, Total ¹	0.0159 mg/L

• Arsenic, Total ¹	0.1685 mg/L
• Copper, Total ¹	0.0636 mg/L
• Zinc, Total ¹	0.117 mg/L

Facility must also test stormwater for any parameter that may be limited on discharges subject to effluent guideline limitation.

Hazardous Waste Treatment, Storage and Disposal

Required Parameter	Benchmark Value
• pH	6.0 – 9.0 S.U.
• Chemical Oxygen Demand	120 mg/L
• Ammonia ² as N	15 mg/L
• Arsenic, Total ¹	0.1685 mg/L
• Cadmium, Total ¹	0.0159 mg/L
• Lead, Total ¹	0.0816 mg/L
• Silver, Total ¹	0.0318 mg/L
• Cyanide, Total ¹	0.0636 mg/L
• Mercury, Total ¹	0.0024 mg/L
• Selenium, Total ¹	0.2385 mg/L

Once during the 5 year term of the permit the stormwater discharges must also be tested for the following parameters: Hardness as CaCO₃, Total Dissolved Solids, Sodium, Calcium, Magnesium, Chloride, Sulfate and Carbonates.

This permit does not authorize the discharge of waters which have come into direct contact with landfill wastes, leachate, gas collection condensate, drained free liquids, contaminated ground water, facility wastewater, contact wash water from washing truck or equipment exteriors and surface areas which have come in direct contact with solid waste at the landfill facility.

Landfills and Land Application

Required Parameter	Benchmark Value
• pH	6.0 – 9.0 S.U.
• Total Suspended Solid	100 mg/L
• Chemical Oxygen Demand	120 mg/L
• Lead, Total ¹	0.0816 mg/L
• Oil and Grease	No visible sheen (15 mg/L)

This permit does not authorize the discharge of waters which have come into direct contact with landfill wastes, leachate, gas collection condensate, drained free liquids, contaminated ground water, facility wastewater, contact wash water from washing truck or equipment exteriors and surface areas which have come in direct contact with solid waste at the landfill facility.

Automobile Salvage Yards (SIC 5015)

Required Parameter	Benchmark Value
• Oil and Grease	No visible sheen (15 mg/L)
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L

<ul style="list-style-type: none"> • Chemical Oxygen Demand 120 mg/L • Lead, Total¹ 0.0816 mg/L
<p>The SWPP plan must include measures to prevent and respond to leaks and spills of fluids. The plan must also address specific processing and storage practices for materials and parts that present a potential environmental concern. A minimum list of materials and parts presenting environmental concern along with corresponding best management practices are outlined in the Division of Waste Management's <i>Guideline 37 – Environmentally Friendly Auto and Metal Salvage Facilities</i>. The guideline, or similar salvage industry BMP guide, may be used as part of a facility's SWPP.</p>

Scrap Recycling Facilities (SIC 5093)

Required Parameter	Benchmark Value
<ul style="list-style-type: none"> • Oil and Grease • pH • Total Suspended Solids • Chemical Oxygen Demand • Copper, Total¹ • Lead, Total¹ • Zinc, Total¹ 	<ul style="list-style-type: none"> No visible sheen (15 mg/L) 6.0 – 9.0 S.U. 100 mg/L 120 mg/L 0.0636 mg/L 0.0816 mg/L 0.117 mg/L
<p>The SWPP plan must include measures to prevent and respond to leaks and spills of fluids. The plan must also address specific processing and storage practices for materials and parts that present a potential environmental concern. A minimum list of materials and parts presenting environmental concern along with corresponding best management practices are outlined in the Division of Waste Management's <i>Guideline 37 – Environmentally Friendly Auto and Metal Salvage Facilities</i>. The guideline, or similar salvage industry BMP guide, may be used as part of a facility's SWPP.</p>	

Air Transportation (Regional and Primary Commercial Airports and Air Force Bases)

Required Parameter	Benchmark Value
<ul style="list-style-type: none"> • pH • Ammonia² as N • Nitrates as Nitrogen • 5-Day BOD • Chemical Oxygen Demand 	<ul style="list-style-type: none"> 6.0 – 9.0 S.U. 15.0 mg/L 0.68 mg/l 30 mg/L 120 mg/L
<p>PRIMARY COMMERCIAL SERVICE AIRPORTS AND US AIR BASES shall conduct monthly sampling beginning with the first month of deicing activities through the final month of deicing activities. For purposes of any sampling waiver request, the data from the past 4 years of sampling will be considered.</p> <p>All facilities are encouraged to implement a program to control or manage contaminated runoff to reduce the amount of pollutants being discharged from the site. BMP options (or their equivalents) to consider include: a dedicated deicing facility with a runoff collection/recovery system; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; and directing runoff into vegetative swales or other treatment systems. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using absorptive booms, etc.) to prevent these materials from being released later.</p> <p>All facilities shall include a summary with their annual reports which indicates the amounts of deicing materials used during the year.</p>	

Baseline Parameters (facilities directed to sample by the Department, but not listed in Items 1 - 10)

Applicability:	
Required Parameter	Benchmark Value
• Oil and Grease	No visible sheen (15 mg/L)
• pH	6.0 – 9.0 S.U.
• Total Suspended Solids	100 mg/L
• Phosphorus, Total	2.0 mg/L
• Ammonia ² as N	15.0 mg/L
• Nitrates as Nitrogen	0.68 mg/l
• 5-Day BOD	30 mg/L
• Chemical Oxygen Demand	120 mg/L

Notes:

1 Hardness dependent; values given are based on a water hardness of 100 mg/L as CaCO₃.

2 Ammonia is pH dependent; value given is based on a pH of 8.0 S.U. TKN values obtained under prior permits may be considered in place of ammonia for sample waivers under Item 9 of appendix 2 of the general permit.

There are cases where the Department may find it necessary for sampling to be conducted to evaluate the effectiveness of BMPs and other water quality concerns. As such, provisions for sampling of stormwater discharges are included in the proposed permit. Conditions that may require sampling include but are not limited to the following:

- Facilities where additional analytical data is needed to estimate the potential impact of stormwater discharges on water quality. Examples of where additional data may be needed include: water quality improvement projects such as Section 319 Nonpoint Source, Total Maximum Daily Load (TMDL), or Lake Restoration Project.
- Facilities where monitoring sample results indicate the discharges are generally of a poor quality or have significantly higher pollutant concentrations relative to the results of similar industrial categories.
- Facilities where the SWPP plan is delinquent, not properly implemented, or determined to be inaccurate.

The permit contains conditions for sampling waivers. The waiver (or reduction in sampling) may be pursued on both a parameter by parameter and outfall by outfall basis. The waiver request must be submitted to the Department for approval. The approval of any waiver will be based on the following conditions:

- At least four (4) samples must have been collected and analyzed from a discharge point where sampling is required for the parameter(s) being considered. The samples may have been obtained over the course of one year or several years. The results from the four (4) most recent samples must have an average concentration below the benchmark value listed in Appendix 1. A summary of all available monitoring data should be included in the request.

- The industrial activities at the site (such as materials handling and storage, chemical use, waste disposal practices, erosion controls, and other types of industrial activities) have not changed since the samples were taken in any way that could have an adverse impact on stormwater quality.
- This waiver is not applicable to sampling for parameters which are required due to effluent limits in the permit.

Annual Report Requirements

Other than those required to sample, facilities covered by this permit are not required to submit reports to the Department on a routine basis. The Department may require reports on a case-by-case basis to gauge permit adequacy such as inspection results summaries, SWPP plans or portions thereof. In addition, local authorities may require routine reporting to evaluate discharges to their storm sewer system.

Facilities that are required to conduct sampling under this permit must submit an annual discharge monitoring report. The report shall summarize monitoring results obtained during the report period. If no discharge occurs during a reporting period, "no discharge" shall be reported. Monitoring reports for a sampling period shall be required from all facilities that are covered by this permit for any portion of that reporting period. The monitoring (or reporting period) and report due dates are as follows:

- For the Primary Commercial Service Airports and US Air Bases the annual report shall cover the period from June 1 to May 31 and be submitted by June 30.
- For all other facilities, the annual report shall cover a period from January 1 to December 31 and be submitted to the Department by January 31.

Self-Monitoring Requirements

All facilities covered by this permit are required to conduct comprehensive site inspections at least two (2) times each year. The inspections shall evaluate discharge outlets from areas used for industrial activities, storage of materials, and structural control measures. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. The control measures identified in the plan shall be observed to ensure that they are operating correctly and in serviceable condition. The SWPP plan shall be revised, as necessary, to correct deficiencies observed during the inspections. Other considerations for the inspections which have been listed in the permit include:

- At least one of the inspections should be conducted within 48 hours of a rainfall or snowmelt event resulting in a stormwater discharge.
- The personnel conducting site inspections must be familiar with permit conditions and the proper installation and operation of control measures.
- A record shall be made summarizing inspection findings, including major observations relating to the SWPP plan, condition of stormwater controls, deficiencies noted and recommendations for corrective action(s);

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

Numerical Criteria for the Protection of Aquatic Life and Recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (NDAC Chapter 33-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. NDDH uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

The U.S. EPA has published numeric water quality criteria for the protection of human health that are applicable to dischargers. These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The Water Quality Standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

Narrative Criteria

Narrative water quality criteria (NDAC Chapter 33-16-02.1-08) limit concentrations of pollutants from exceeding applicable standards of the receiving waters. NDDH adopted a narrative biological goal solely to provide an additional assessment method that can be used to identify impaired surface waters.

Antidegradation

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33-16-02.1(Appendix IV)) is to:

- Provide all waters of the state one of three levels of antidegradation protection.
- Determine whether authorizing the proposed regulated activity is consistent with antidegradation requirements.

NDDH's fact sheet demonstrates that the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit.

Mixing Zones

NDDH's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33-16-02.1 (Appendix III). This policy addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations for point source discharges. Depending upon site-specific mixing patterns and environmental concerns, some pollutants/criteria may be allowed a mixing zone or dilution while others may not. In all cases, mixing zone and dilution allowances shall be limited, as necessary, to protect the integrity of the receiving water's ecosystem and designated uses.

EVALUATION OF SURFACE WATER QUALITY-BASED EFFLUENT LIMITS FOR NUMERIC CRITERIA

The effluent limitation and benchmark concentrations in the permit reflect the conditions of the EPA Multi-Sector General Permit (MSGP-2008). Water quality based limits may be imposed on discharges covered by this permit through the implementation of a TMDL allocation. In addition, a facility covered by this permit may be required to obtain an individual permit based on site specific water quality based limitations.

MONITORING REQUIREMENTS

NDDH requires monitoring, recording, and reporting (NDAC Chapter 33-16-01-(21-23) and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's limits.

TEST PROCEDURES

The collection and transportation of all samples shall conform to EPA preservation techniques and holding times. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

PERMIT ISSUANCE PROCEDURES

Permit Modifications

The NDDH may modify, revoke and reissue, or terminate this permit for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. NDDH also may modify this permit to comply with new or amended state or federal regulations.

Proposed Permit Issuance

This proposed permit meets all statutory requirements for NDDH to authorize a stormwater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the State of North Dakota. NDDH proposes to issue this permit for a term of five (5) years.

Any request to retain coverage under a renewal of this permit shall be made in writing to the NDDH at least 15 days prior to the expiration date of this permit. Typically the NDDH provides permit holders with renewal or renotification instructions when a new permit has been drafted. Upon request by the NDDH, a new Notice of Intent shall be submitted.

APPENDIX A – PUBLIC INVOLVEMENT INFORMATION

NDDH proposes to reissue a general permit for stormwater discharges associated with industrial activity. The permit includes the use of best management practices, the development of a stormwater pollution prevention plan, monitoring requirements and other conditions. This fact sheet describes the facility and NDDH's reasons for requiring permit conditions.

NDDH will place a 30-day Public Notice on **January 15, 2010** in the **Bismarck Tribune**, the official newspaper of the capital city, and in **Regional Papers** throughout the state to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet. The notice will also be mailed to the NDDH's Public Notice mailing list.

The Notice –

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges people to submit their comments before the end of the comment period.
- Informs the public that if there is significant interest, a public hearing will be scheduled.

You may obtain further information from NDDH by telephone, 701.328.5210 or by writing to the address listed below.

North Dakota Department of Health
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismarck, ND 58501

The authors of the general permit are Cory Lawson and Dallas Grossman. The author of this fact sheet is Dallas Grossman.

**North Dakota Department of Health Public Notice
Issue of an NDPDES Permit**

Public Notice Date: 1/15/2010

Public Notice Number: ND-2009-040

Purpose of Public Notice

The Department intends to issue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

Permit Information

Application Date: 10/1/2009

Application Number: NDR05

Applicant Name: NDPDES Industrial Stormwater General Permit

Mailing Address: ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947

Telephone Number: 701.328.5239

Proposed Permit Expiration Date: 3/31/2015

Description

The Department proposes to reissue NDPDES General Permit NDR05-0000 to regulate the discharge of stormwater associated with industrial activity. The general permit addresses stormwater discharges from industrial activities listed in 40CFR 122.26(b)(14) except for gravel and other mineral mining operations, oil and gas extraction facilities, and concrete or asphalt batch plants. The permit requires the implementation of a pollution prevention plan to reduce stormwater pollution. The permit includes discharge limits based on prohibitions, best management practices, water quality standards, and other considerations applicable to the activities. The proposed permit expiration date is March 31, 2015.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCA will be protected.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by February 15, 2010 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

APPENDIX B – GLOSSARY

DEFINITIONS

"303d List" or "Section 303d List" means a list of North Dakota's water quality-limited waters needing total maximum daily loads or TMDLs developed to comply with section 303d of the Clean Water Act. A copy of the list is available on the state's web site at:
www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm.

"BMP" or "Best Management Practices" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Department" means the North Dakota Department of Health, Division of Water Quality.

"Energy Dissipation" means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to: concrete aprons, riprap, splash pads, and gabions that are designed to prevent erosion.

"Grab" sample, for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

"NDPDES" means North Dakota Pollutant Discharge Elimination System.

"No Exposure" means that all industrial materials or activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt and/or runoff.

"Non-stormwater discharges" means discharges other than stormwater. The term includes both process and non-process sources. Process wastewater sources that require a separate NDPDES permit include, but are not limited to industrial processes, domestic facilities and cooling water. Non-stormwater sources that may be addressed in this permit include, but are not limited to: fire-fighting, fire hydrant flushing, potable water line flushing, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.

"Operator" means the owner, party, person, general contractor, corporation, or other entity that has operational control over a facility. The operator is responsible for ensuring compliance with all conditions of the permit and with development and implementation of the "stormwater pollution prevention plan".

"Primary Commercial Service Airports" means the four major airports with commercial service and two military airfields in North Dakota. The Bismarck Airport, the Fargo Airport, the Grand Forks Airport, the Minot Airport, the Grand Forks Air Base and the Minot Air Base are included in this definition.

"Regional Commercial Service Airports" are the airports located in the cities of Devils Lake, Dickinson, Jamestown, and Williston

"Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

"Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

"Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater Associated with Industrial Activity" means stormwater runoff, snow melt runoff, or surface runoff and drainage from industrial activities as defined in 40 CFR § 122.26(b)(14). Industrial facilities (including industrial facilities that are federally or municipally owned or operated that meet the description of the facilities listed in paragraph (i)-(xi)) include those facilities designated under 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for the purposes of this subsection:

- (i) Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this paragraph);
- (ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;
- (iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(1)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, by-products or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;
- (iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;
- (v) Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;
- (vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

- (vii) Steam electric power generating facilities, including coal handling sites;
- (viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (i) - (vii) or (ix) - (xi) of this subsection are associated with industrial activity;
- (ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 CFR 503;
- (x) Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale;
- (xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Waters of the state" means any and all surface waters that are contained in or flow in or through the state of North Dakota as defined in NDCC 61-28-02. This definition includes all water courses, even if they are usually dry.

"You" means the owner, operator or permittee as appropriate.

APPENDIX C – RESPONSE TO COMMENTS

No comments were received during the public comment period. The following are changes made to the permit by the department.

1. The following language was added to Appendix 1, Sample Group 10 (Air Transportation), "REGIONAL COMMERCIAL SERVICE AIRPORTS shall sample at least once per year; a discharge sample should be collected during deicing activities if possible." The sampling requirement for regional commercial service airports was outlined in Part II-B-1 and is being reiterated as part of the sample group.
2. During the public comment period, it was discovered that the benchmark concentration for ammonia as nitrogen was incorrect. The benchmark concentration may be found in Appendix 1 of the permit. The benchmark value given was 15.0 mg/L with a note explaining, "Ammonia is pH dependent; value given is based on a pH of 8.0 s.u...." The benchmark value is incorrect for the pH value given.

The department changed the ammonia as nitrogen benchmark value from 15.0 mg/L to 8.41 mg/L. This value is based on the acute water quality standard where salmonids are absent. The standard may be found in NDAC 33-16-02.1, Table 1. The department reviewed available discharge monitoring report data submitted by permittees in choosing this value.

The department conducted the following analysis of the available data to arrive at the benchmark value.

First, the department obtained data for samples which had an ammonia value and a pH value. From that, the department removed any data that indicated a result was a conditional limit and not required to be reported and any data that indicated that an analysis was not conducted.

After paring down the data set the department was left with 105 sets of pH-ammonia samples. Of the 105 ammonia results, 28 indicated there was no detection of ammonia in the sample. These 28 samples were arbitrarily given an ammonia value of 5 mg/L which was a common value given as a detection limit for ammonia.

The department then calculated the acute (salmonids & no salmonids), chronic and site-specific chronic standard for the sample with the reported pH value. The equation for each standard may be found in NDAC 33-16-02.1, Table 1, Ammonia (Total as N). A temperature of 14 degrees celcius was used for the chronic standard, and a temperature of 7 degrees celcius was used for the site specific standard. The standards were calculated in order to compare what the ammonia standard would be at the sample pH versus the actual ammonia results from the same standard. Table 1 shows the results of the comparison.

The data indicated 7% of the samples exceeded the acute standard where no salmonids were present, 10% exceeded the acute standard where salmonids were present, 27% exceeded the chronic limit at a temperature of 14 degrees celcius, and 16% would have exceeded the site-specific chronic limit at a temperature of 7 degrees celcius.

Table 1.

	Acute Standard @ Sample pH (no salmonids)	Acute Standard @ Sample pH (salmonids)	Chronic Standard @ Sample pH @ 14 deg C	Site Specific Standard @ Sample pH @ 7 deg C
Total Number of Samples	105	105	105	105
Total Number of WQ Standard Exceedances	7	10	28	17
Total Number Below WQ Standard	98	95	77	88

The department chose to use the acute standard where no salmonids are present for the following reasons:

- 1) The site-specific chronic standard applies only to the Red River of the North beginning at the 12th Avenue North bridge in Fargo downstream to the confluence with the Buffalo River in Minnesota and is not practical for a statewide general permit. Also, this standard is only applicable from October through February which limits its use.
- 2) The acute standard where salmonids are present applies to class 1 and 2 lakes and reservoirs. After reviewing the list of class 1 and 2 lakes in NDAC 33-16-02.1 and the available facility information, there are very few facilities that discharge to these lakes, and of those facilities, only one is required to sample for ammonia. This standard is not practical for a statewide general permit.
- 3) The chronic standard was not chosen because it is typically applied to instances where there is low flow and a continuous discharge. Typically stormwater discharges are intermittent and result in a flow increase in the receiving stream.

The pH concentrations of the 105 samples were reviewed to determine the appropriate benchmark concentration for ammonia using the acute standard where salmonids are not present. The average and median pH value of the samples was 7.5 s.u.; the ninetieth percentile pH value was 8.25 s.u.; and the standard deviation from the median pH value was 0.57 s.u. From this, a pH of 8.0 s.u. was chosen to calculate the ammonia benchmark concentration. This gives an ammonia benchmark of 8.41 mg/L.

This benchmark concentration was compared to the 105 ammonia results. The average ammonia level was 2.66 mg/L and the median was 1.51 mg/L. The ninetieth and ninety-fifth percentile ammonia values were 5.3 and 6.6 mg/L, respectively. Based on this information, the department feels that the benchmark concentration of 8.41 mg/L (based on pH of 8.0 s.u.) is an appropriate value and will not result in a change for many of the permittees.